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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/782,529	02/13/2001	Bo Domstedt	1774/1G723US/	7544

7590 08/31/2004
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EXAMINER

CHAI, LONGBIT

ART UNIT PAPER NUMBER

2131

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/782,529

Applicant(s)

DOMSTEDT ET AL.

Examiner

Longbit Chai

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.
2. The application is filed on 02/13/2001 but claims the benefit of U.S. provisional application number 60/182,355 filed on Feb. 14, 2000.

Therefore, the effective filing date for the subject matter defined in the pending claims in this application is 02/14/2000.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 14, 29 and 44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claim limitation "unpacking of information packets continues until the clock reaches a preset value" is not enabled by the specification. As understood by the examiner, only the "packing of information packets continues until the clock reaches a preset value" but not the "unpacking of information packets continues until the clock

Art Unit: 2131

reaches a preset value" function is enabled according to the specification and common design practices.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 – 5, 10, 15 – 20, 25, 30 – 35, 40 and 45 are rejected under 35

U.S.C. 102(e) as being anticipated by Komuro (Patent Number: US 6223285 B1),

hereinafter referred to as Komuro.

5. As per claims 1, 16 and 31, Komuro teaches an information processing arrangement for converting message information from a first format into a second format, having a cipher unit (210) with a first cipher key input (212) and a data output (213) for outputting a data stream generated dependent on a first cipher key input via said first cipher key input (212), wherein said first cipher unit 210 includes: a memory (14) for storing data, means (16,11,12) for updating said memory with input information, an instruction table (13) comprising a set of operations adapted to modify said memory (14), processing means (11) adapted to select operations from said instruction table (13) in response to at least part of said input information, and to execute said selected operations on the contents of said memory (14), at least one of said set of operations being selectable in response to any possible configuration of at least part of said input

Art Unit: 2131

information, and means (15) for extracting output information from said memory (14), characterised in that it is devised for encryption of information packets (220), each having a block head (221) and a plaintext data block (222) in a packet transmitting system (Komuro: see for example, Figure 5A Elements 418, 418 & 440, Column 5 Line 45 – 48 and Column 7 Line 49 – 53: Packet header reads on block head).

6. As per claims 2, 17 and 32, Komuro teaches the claimed invention as described above (see claim 1, 16 and 31 respectively). Komuro further teaches devised to separate the block head (221) from the plaintext data block (222) in connection with encryption; to encrypt the plaintext data block (222) and to assemble an encrypted information packet (230) including an unencrypted block head (231) and an encrypted data block (232) after said encryption ((Komuro: see for example, Figure 5A Elements 418, 418 & 440, Column 5 Line 45 – 48 and Column 7 Line 49 – 53).

7. As per claims 3, 18 and 33, Komuro teaches the claimed invention as described above (see claim 2, 16 and 31 respectively). Komuro further teaches being devised to, in connection with decryption, separate said unencrypted block head (231) and said encrypted data block (232) of said information packet (230), to decrypt the encrypted data block (232) and to assemble a decrypted information packet comprising a block head (221) and a plaintext data block (222) (Komuro: see for example, Column 8 Line 32 – 37).

8. As per claims 4, 19 and 34, Komuro teaches the claimed invention as described above (see claim 1, 16 and 31 respectively). Komuro further teaches comprising a look-

Art Unit: 2131

up function (240) arranged to select a cipher key dependent on the content of the block head (221) (Komuro: see for example, Column 3 Line 35 – 39).

9. As per claims 5, 20 and 35, Komuro teaches the claimed invention as described above (see claim 4, 16 and 31 respectively). Komuro further teaches the lookup function (240) is devised to select a cipher key for encryption and decryption, respectively, from a database (250) (Komuro: see for example, Column 3 Line 35 – 39).

10. As per claims 10, 25 and 40, Komuro teaches the claimed invention as described above (see claim 8, 16 and 31 respectively). Komuro further teaches comprising an unpacking function (262) arranged in connection with a plaintext output of the cipher unit (210) for unpacking an assembled information packet (220) to separate information packets each having its block head and its plaintext block (Komuro: see for example, Figure 5A Elements 440 and 448).

11. As per claims 15, 30 and 45, Komuro teaches the claimed invention as described above (see claim 1, 16 and 31 respectively). Komuro further teaches being adapted for encryption and decryption, respectively, of the information packets comprising any of: multimedia information; a program part to an application program; a program part to a game program; a part of an image stream to HDTV; packets of the IP (Internet Protocol) type to the Internet; packets adapted to the ATM (Asynchronous Transfer Mode) [ITU I.321]; blocks according to the TCP (Transmission Control Protocol) level according to [RFC 793]; blocks according to the UDP (User Datagram Protocol) according to [RFC 793]; blocks according to the IPSEC [RFC 2406]; blocks according to the SMTP [RFC 821]; blocks according to the Secure Sockets Layer [RFC SSL]; blocks according to the

Art Unit: 2131

WAP (Wireless Application Protocol); blocks in the Transaction layer, WTP (Wireless Transaction Protocol); blocks in the Security layer, WTLS–Wireless Transport Layer Security; or blocks according to the WDP (Wireless Datagram Protocol) (Komuro: see for example, Column 1 Line 39 – 41).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 6, 7, 21, 22, 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komuro (Patent Number: US 6223285 B1), hereinafter referred to as Komuro, in view of Coss (Patent Number: 6098172), hereinafter referred to as Coss.

13. As per claims 6, 21 and 36, Komuro teaches the claimed invention as described above (see claim 1, 16 and 31 respectively). Komuro does not teach being devised to change the destination address of the information block from a first to a second destination address in the output block head (231) dependent on the input block head (221).

Art Unit: 2131

14. Coss teaches being devised to change the destination address of the information block from a first to a second destination address in the output block head (231) dependent on the input block head (221) (Coss: see for example, Column 10 Line 318 – 20).

15. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Coss within the system of Komuro because Coss provides techniques for computer networks to improve processing efficiency, improve security and enhance the ability of a firewall to deal with complex protocols (Coss: see for example, Column 1 Line 59 – 62).

16. As per claims 7, 22 and 37, Komuro as modified teaches the claimed invention as described above (see claim 6, 16 and 31 respectively). Komuro as modified further teaches the lookup function (240) is devised to select from a database (250) a data record (251) containing said second destination address (Coss: see for example, Column 4 Line 20).

17. Claims 8, 12 – 14, 23, 27 – 29, 38, and 42 – 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komuro (Patent Number: US 6223285 B1), hereinafter referred to as Komuro, in view of Fishman (Patent Number: EP 0909060 A2), hereinafter referred to as Fishman.

18. As per claims 8, 23 and 38, Komuro teaches the claimed invention as described above (see claim 1, 16 and 31 respectively). Komuro does not teach comprising an

Art Unit: 2131

assembly function (260) arranged in connection to the plaintext input to the cipher unit (210) for assembling a plurality of information packet (220) having the same destination address to a unified information packet with one block head and one plaintext block for encryption of said plaintext block to an encrypted data block.

19. Fishman teaches comprising an assembly function (260) arranged in connection to the plaintext input to the cipher unit (210) for assembling a plurality of information packet (220) having the same destination address to a unified information packet with one block head and one plaintext block for encryption of said plaintext block to an encrypted data block (Fishman: see for example, Column 4 Line 28 – 35).

20. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Fishman within the system of Komuro because (a) Komuro discloses information transferring in a digital broadcast system (Komuro: see for example, Figure 3) and (b) Fishman teaches an efficient transmission technique for delay-significance broadcast network such as multiple-path satellite broadcast communication system (Coss: see for example, Column 1 Line 59 – 62).

21. As per claims 12, 27 and 42, Komuro as modified teaches the claimed invention as described above (see claim 8, 23 and 38 respectively). Komuro as modified further teaches being devised to assemble input information packets during a predetermined period of time (Fishman: see for example, Column 4 Line 34 – 35 and Column 4 Line 55 – 56: Fishman teaches the assigned block of time slots for each transmission is equivalent to a predetermined period of time).

Art Unit: 2131

22. As per claims 13, 28 and 43, Komuro as modified teaches the claimed invention as described above (see claim 8, 23 and 38 respectively). Komuro as modified further teaches comprising a resettable and presettable block arranged to be reset when a first information packet is input to the assembly function (260), wherein the assembly of information packets continues until the clock reaches a preset value (Fishman: see for example, Column 4 Line 34 – 35 and Column 4 Line 55 – 56: Fishman teaches the assigned block of time slots for each transmission is equivalent to a predetermined period of time).

23. As per claims 14, 29 and 44, Komuro as modified teaches the claimed invention as described above (see claim 10, 25 and 40 respectively). Komuro as modified further teaches comprising a resettable and presettable clock devised to be preset when a first information packet is input to the unpacking function (262), wherein the unpacking of information packets continues until the clock reaches a preset value (Fishman: see for example, Column 4 Line 34 – 35 and Column 4 Line 55 – 56).

24. Claims 9, 11, 24, 26, 39 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komuro (Patent Number: US 6223285 B1), hereinafter referred to as Komuro, in view of Aziz (Patent Number: 5548646), hereinafter referred to as Aziz.

25. As per claims 9, 24 and 39, Komuro teaches the claimed invention as described above (see claim 8, 16 and 31 respectively). Komuro does not teach the assembly

Art Unit: 2131

function (260) further comprises compression means for the compression of the data block input to the cipher unit (210).

26. Aziz teaches the assembly function (260) further comprises compression means for the compression of the data block input to the cipher unit (210) (Fishman: see for example, Column13 Line 14 and Column13 Line 30).

27. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Aziz within the system of Komuro because Aziz teaches a system automatically encrypting and decrypting data packets between sites on the computer networks including the compressing technique to reduce the transmitted data size of a packet and the required bandwidth of a network (Aziz: see for example, Column 1 Line 10 – 12, Column13 Line 14 and Column13 Line 30).

28. As per claims 11, 26 and 41, Komuro as modified teaches the claimed invention as described above (see claim 9, 16 and 31 respectively). Komuro as modified further teaches the unpacking function (260) further comprises the compression means for decompressing the data blocks output from the cipher unit (210). (Fishman: see for example, Column 4 Line 34 – 35 and Column 4 Line 55 – 56: decompressing of the data blocks must be inherited from the compressing of the data blocks).

Art Unit: 2131

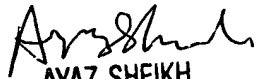
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Longbit Chai whose telephone number is 703-305-0710. The examiner can normally be reached on Monday-Friday 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Longbit Chai
Examiner
Art Unit 2131

LBC


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